

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A micro-optical device having an aligned waveguide switch, comprising:

a semiconductor substrate;

a stationary input part arranged on the semiconductor substrate, the stationary input part having a plurality of channels, with a plurality of input waveguides and each channel being an input waveguide;

a stationary output part arranged on the semiconductor substrate, the stationary output part having a plurality of channels, with a plurality of output waveguides and each channel being an output waveguide;

a movable part movably arranged on the semiconductor substrate, the movable part having a plurality of channels, and each channel being with a plurality of a switching waveguides, the movable part being movable relative to the stationary input and output parts;
and

at least one stop block that limits movement of the movable part to align at least one of the switching waveguides with at least one of the input waveguides and at least one of the output waveguides, wherein movement of the movable part is substantially transverse.

2. (Currently Amended) The device of claim 1, wherein the device further comprises a single-crystal-silicon layer and the stationary input part, the stationary output part and the movable part are part of a single-crystal-silicon layer of the device.

3. (Currently Amended) The device of claim 2, wherein the at least one stop block is formed on the semiconductor substrate ~~a stationary part of the device.~~

4. (Currently Amended) The device of claim 2, wherein the at least one stop block is made of polysilicon~~comprises a polysilicon layer of the device.~~

5. (Currently Amended) The device of claim 4, further comprising at least one polysilicon bumper connected to the movable part, the polysilicon bumper bumping into the stop block in order to stop the movable part.

6. (Currently Amended) The device of claim 1, wherein the at least one stop block ~~comprises~~ is made of a polysilicon layer of the device.

7. (Currently Amended) The device of claim 6, further comprising at least one polysilicon bumper connected to the movable part, the polysilicon bumper bumping into the stop block in order to stop the movable part.

8. (Currently Amended) A method for fabricating a micro-optical device having an aligned waveguide switch, comprising:

_____ forming a crystal layer on a semiconductor substrate;

_____ forming a stationary input part, a stationary output part and a movable part in using the formed crystal layer~~a structural layer;~~

_____ forming a plurality of channels~~waveguides~~ in each of the stationary input part, the stationary output part and the movable part, each of the channels being a waveguide; and

_____ forming at least one stop block that limits movement of the movable part to align at least one of the waveguides of the movable part with at least one of the waveguides of the stationary input and output parts, wherein movement of the movable part is substantially transverse.

9. (Currently Amended) The method of claim 8, wherein:
_____ forming the plurality of channels~~waveguides~~ comprises defining a set of offsets between the waveguides~~channels~~ of the movable part and the channels~~waveguides~~ of the stationary input and output parts, and

~~wherein forming the at least one stop block comprises defining~~arranging the at least one stop block ~~based on~~with the set of offsets.

10. (Currently Amended) The method of claim 9, wherein forming the at least one stop block further comprises defining at least one edge of the movable part ~~based on~~with the set of offsets.

11. (Currently Amended) The method of claim 9, wherein forming the at least one stop block further comprises ~~arranging~~defining at least one bumper connected to the movable part ~~based on~~with the set of offsets.

12. (Currently Amended) The method of claim 8, wherein the forming the crystal layer comprises forming structural layer is a single-crystal-silicon layer.

13. (Currently Amended) The method of claim 12, wherein ~~the forming single-crystal-silicon layer is etched to define~~ the stationary input part, the stationary output part and the movable part comprises etching the single-crystal-silicon layer.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (New) The device of claim 1, wherein an insulating layer is arranged between the semiconductor substrate and the stationary input part, the stationary output part and the movable part.

18. (New) The method of claim 8, further comprising forming an insulating layer on the semiconductor substrate, wherein the crystal layer is formed on the insulating layer.

19. (New) The method of claim 18, further comprising depositing a sacrificial layer on the device after forming the stationary input part, the stationary output part and the movable part.

20. (New) The method of claim 19, further comprising depositing a polysilicon layer on the deposited sacrificial layer.
21. (New) The method of claim 20, further comprising forming a hole in the sacrificial layer and the insulating layer.
22. (New) The method of claim 21, further comprising forming a structural layer on the device after forming the hole in the sacrificial layer and the insulating layer.
23. (New) The method of claim 22, further comprising patterning the structural layer to form the at least one stop block and at least a portion of the stop block is arranged in the formed hole.
24. (New) The method of claim 23, wherein forming the structural layer comprises forming a polysilicon layer.